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## PATENT ABSTRACTS OF JAPAN

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G02F 1/1335(21)Application number : 04-320720 (71)Applicant : SANYO ELECTRIC CO LTD  
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LTD(22)Date of filing : 30.11.1992 (72)Inventor : NARITA KENICHI  
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## (54) LIQUID CRYSTAL DISPLAY DEVICE

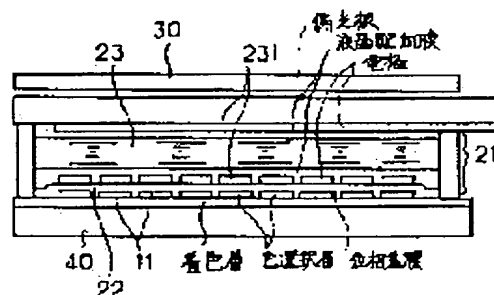
## (57)Abstract:

PURPOSE: To provide a liquid crystal display device which is simple in structure, has high efficiency of utilizing light, can make bright display and enables high time sharing driving.

CONSTITUTION: A short-pitch cholesteric liquid crystal layer reflects light in the prescribed rotating direction of a specific wavelength

(prescribed red) and allows the transmission of light in a reverse direction. Color selection layers which reflect the light circularly polarized with a specific wavelength by utilizing the property, double refractive layers which have prescribed retardation at the time of electric field impression and are laminated on these color selection layers and selection layers which allow the selective transmission of the output light of the double refractive layers are laminated. The color selection layers 11 which are disposed on light

shielding layers and consist of a cholesteric liquid crystal to reflect the light of the specific wavelength, phase difference films 22 which are laminated on the color selection layers 11 and have prescribed retardation, liquid crystal layers 23 which are laminated on the color selection layers 11 and have means for impressing electric fields and a polarizing plate 30 are laminated.



## LEGAL STATUS

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